

Kim B. Wittchen
Senior Researcher, Seniorforsker, Senior Researcher
Department of the Built Environment
The Faculty of Engineering and Science
Division of Energy and Sustainability in Buildings
Sustainability of Buildings Research Group
Department of the Built Environment
Type of address: Postal address.
A.C. Meyers Vænge 15
A, 2_4_126
2450
København SV
Denmark
Type of address: Visiting address.
København SV
Email: kiwi@build.aau.dk
Phone: +4599402379, +45 9940 2379
Mobile: +45 2347 9318
Web: <http://sbi.dk>, <http://sbi.dk>, <http://sbi.dk>, <http://sbi.dk>



Employment

Seniorforsker

Department of the Built Environment
The Faculty of Engineering and Science
Aalborg Øst, Denmark
1 Jan 2008 → present

Division of Energy and Sustainability in Buildings

The Faculty of Engineering and Science
Aalborg Øst, Denmark
1 Jan 2008 → present

Senior Researcher

Senior Researcher
Sustainability of Buildings Research Group
The Faculty of Engineering and Science
København SV, Denmark
1 Jan 2008 → 31 Dec 4712

Assttant Professor, civ.eng.

Technical University of Denmark
Denmark
15 Feb 1986 → 31 Mar 1992

Research outputs

Expanding Building Archetypes to Estimate the Indoor Environment Thermal Storage Capacity in the Danish Building Stock when Performing Demand Response

Johra, H., Goupy, M. & Wittchen, K. B., Jun 2024, (Accepted/In press) *BuildSim Nordic 2024 - Conference Proceedings*.

Termisk lagerkapacitet i bygningsmassen kan udnyttes til bygning-til-net service

Johra, H., Goupy, M. & Wittchen, K. B., May 2024, In: HVAC magasinet : magasin for klima- & energiteknik, miljø, bygningsinstallationer & -netværk. 60, 6 - May 2024, p. 40-43 4 p.

Thermal storage capacity in the entire building stock of Denmark for energy flexibility strategies and building-to-grid services

Johra, H., Goupy, M. & Wittchen, K. B., Jan 2024, In: REHVA Journal. 61, 1, p. 14-17 4 p.

Do the customers remember? The fade-out effect from the demand response applied in the district heating system in Denmark

Marszal-Pomianowska, A., Jensen, O. M., Wittchen, K. B., Jokubauskis, B. & Melgaard, S. P., Dec 2023, In: Journal of Physics: Conference Series (Online). 2600, 13, 132003.

Method combining expert and analytical approaches towards economical energy renovation roadmaps and improved indoor comfort

Pomianowski, M. Z., Wittchen, K., Schaffer, M., Hu, Y., Chiesa, G., Fasano, F. & Grasso, P., Dec 2023, In: Journal of Physics: Conference Series (Online). 2600, 8, 082022.

Influence of window recess on solar loads, heat loss and external condensation

Wittchen, K. B., Rose, J. & Nielsen, A., 2023, In: Journal of Physics: Conference Series (Online). 2654, 1, 012144.

Energy flexible DYnamic building Certification - Decision Support System. E-DYCE deliverable D4.2.

Wittchen, K. B. & Chiesa, G., 15 Dec 2022, European Commission. 22 p.

Ten questions concerning energy flexibility in buildings

Li, R., Satchwell, A. J., Finn, D., Christensen, T. H., Kummert, M., Le Dréau, J., Amaral Lopes, R., Madsen, H., Salom, J., Henze, G. & Wittchen, K. B., Sept 2022, In: Building and Environment. 223, 12 p., 109461.

Danish, Estonian and Finnish NZEB requirements comparison with European Commission recommendations for office buildings in Nordic and Oceanic climates

Simson, R., Arumagi, E., Thomsen, K. E., Wittchen, K. B. & Kurnitski, J., 31 Aug 2022, *The 16th ROOMVENT Conference (ROOMVENT 2022) Xi'an, China, September 16-19, 2022*. Olofsson, A. L. T. & Kosonen, R. (eds.). EDP Sciences, 01017. (E3S Web of Conferences, Vol. 356).

CO2-krav og særlige bygningsforudsætninger: Udformning af model til beregning af overskridelse af grænseværdi ved øget klimapåvirkning grundet særlige bygningsforudsætninger

Nielsen, L. H., Tozan, B., Birgisdottir, H. & Wittchen, K. B., 29 Aug 2022, København: Institut for Byggeri, By og Miljø (BUILD), Aalborg Universitet. 44 p. (BUILD Rapport; No. 27, Vol. 2022).

Nordic-Baltic NZEBs: Exchange of experience

Wittchen, K. B. (ed.), Thomsen, K. E., Kurnitski, J., Simson, R. & Arumägi, E., May 2022, Kbh.: Institut for Byggeri, By og Miljø (BUILD), Aalborg Universitet. 107 p. (BUILD Rapport; No. 20, Vol. 2022). (BUILD Report; No. 20, Vol. 2022).

NZEB Requirements vs European Benchmarks in Residential Buildings

Simson, R., Thomsen, K. E., Wittchen, K. B. & Kurnitski, J., Apr 2021, In: REHVA Journal. 58, 2 (April), p. 40-44 5 p.

A Comparative Analysis of NZEB Energy Performance Requirements for Residential Buildings in Denmark, Estonia and Finland

Simson, R., Thomsen, K. E., Wittchen, K. B. & Kurnitski, J., 29 Mar 2021, *Cold Climate HVAC & Energy 2021*. Kurnitski, J. & Thalfeldt, M. (eds.). EDP Sciences, p. 1-12 12 p. 14001. (E3S Web of Conferences, Vol. 246).

Vejrdata til fremtidens byggeri

Wittchen, K. B. & Jønsson, K. T., Mar 2021, Aalborg: Institut for Byggeri, By og Miljø (BUILD), Aalborg Universitet. 11 p.

Characterisation of thermal energy dynamics of residential buildings with scarce data

Palmer Real, J., Rasmussen, C., Li, R., Leerbeck, K., Jensen, O. M., Wittchen, K. B. & Madsen, H., 1 Jan 2021, In: Energy and Buildings. 230, 10 p., 110530.

Cost-effectiveness of energy efficiency improvements for a residential building stock in a Danish district heating area
Baldini, M., Brøgger, M., Jacobsen, H. K. & Wittchen, K. B., 1 Dec 2020, In: *Energy Efficiency*. 13, 8, p. 1737-1761 25 p.

Analyses of thermal storage capacity and smart grid flexibility in Danish single-family houses

Wittchen, K. B., Jensen, O. M., Real, J. P. & Madsen, H., 13 Oct 2020, *BuildSim-Nordic 2020 : Selected papers: International Conference Organised by IBPSA-Nordic, 13th–14th October 2020, OsloMet*. Georges, L., Haase, M., Novakovic, V. & Schild, P. G. (eds.). 1 ed. Oslo: SINTEF Academic Press, Vol. 1. p. 131-138 8 p. (SINTEF proceedings, Vol. 5).

Anvisning om Bygningsreglement 2018

Hansen, E. J. D. P., Ginnerup, S., Sigbrand, L., Jensen, O. M., Brandt, E., Morelli, M., Sørensen, L. S., Buch-Hansen, T. C., Møller, E. B., Kirkeby, I. M., Kragh, J., Aggerholm, S., Wittchen, K. B., Nielsen, R. D., Gunnarsen, L. B., Rasmussen, T. V., Aagaard, N. J., Rasmussen, B., Johnsen, K. & Bergsøe, N. C., 29 Sept 2020, 2. ed. København: Institut for Byggeri, By og Miljø (BUILD), Aalborg Universitet. 678 p. (SBI-anvisning; No. 272).

Multi-objective optimization of building life cycle performance. A housing renovation case study in Northern Europe

Montana, F., Kanafani, K., Wittchen, K. B., Birgisdottir, H., Longo, S., Callura, M. & Sanserverino, E. R., 22 Sept 2020, In: *Sustainability*. 12, 18, 7807.

Bygninger som energilagere i et smart-grid

Jensen, O. M., Wittchen, K. B., Real, J. P. & Madsen, H., May 2020, København: Institut for Byggeri, By og Miljø (BUILD), Aalborg Universitet. 71 p. (SBI; No. 2020:14).

Cost optimisation and life cycle assessments of nearly zero energy buildings

Wittchen, K. B., Thomsen, K. E., Mørck, O. & Gutierrez, M. S. M., Jan 2020, In: *REHVA Journal*. 2020, 1, p. 44-47 5 p.

Implementation of the EPBD Denmark: Status in 2020

Thomsen, K. E., Wittchen, K. B., Sandorff, S. M., Hansen, A., Kold, L., Jørgensen, K. E., Hoang, T. Q. & Varming, N. B., 2020, *Concerted Action - Energy Performance of Buildings: Country reports 2020*. 5 ed. København, 27 p.

Energy and indoor climate measurements in Denmark's first energy neutral block of flats

Wittchen, K. B. & Jensen, S. Ø., 6 Nov 2019, *1st Nordic Conference on Zero Emission and Plus Energy Buildings*. 1 ed. IOP Publishing, Vol. 352. p. 1-7 7 p. 012010. (IOP Conference Series: Earth and Environmental Science, Vol. 352).

EU projekt CoNZEBS sætter skub i udviklingen af billigere lavenergibyggeri

Wittchen, K. B., Thomsen, K. E., Mørck, O. & Sanchez Mayoral Gutierrez, M., Nov 2019, In: *HVAC Magasinet*. 2019, 11, p. 16-20

Life-Cycle Assessments of Near Zero Energy Buildings (NZEBS) and Beyond in Comparison with Regular New Buildings

Mørck, O., Sanchez Mayoral Gutierrez, M., Thomsen, K. E. & Wittchen, K. B., Nov 2019, *Proceedings of the ISES Solar World Conference 2019 and the IEA SHC Solar Heating and Cooling Conference for Buildings and Industry 2019*. Cardemil, J. M., Guthrie, K. & Rütther, R. (eds.). Freiburg: International Solar Energy Society, ISES, p. 1814-1824 11 p.

Results obtained in WP1

Klinge Jacobsen, H. (ed.) & Wittchen, K. B., Nov 2019, *SAVE-E: Closing the energy efficiency gap: Final project findings and recommendations*. Jacobsen, H. K. (ed.). DTU Management, p. 5-9 4 p.

Cost-efficient Nearly Zero-Energy Buildings (NZEBS)

Erhorn-Kluttig, H., Erhorn, H., Illner, M., Thomsen, K. E., Wittchen, K. B., Mørck, O., Sanchez Mayoral Gutierrez, M., Zinzi, M., Mattoni, B., Fasano, G., Zavrl, M. Š. & Jacimovic, M., 23 Oct 2019, In: *IOP Conference Series: Materials Science and Engineering*. 609, 6, p. 1-6 6 p., 062002.

Solution sets for NZEB multi-family houses and beyond assessed for 2030 ; Deliverable D6.1: Solution sets for the Cost reduction of new Nearly Zero-Energy Buildings – CoNZEBS

Erhorn-Kluttig, H., Illner, M., Erhorn, H., Thomsen, K. E., Wittchen, K. B., Mørck, O., Balslev-Olesen, O., Zinzi, M., Mattoni, B., Zavrl, M. Š. & Jacimovic, M., 30 Sept 2019, 108 p.

A hybrid modelling method for improving estimates of the average energy-saving potential of a building stock

Brøgger, M., Bacher, P. & Wittchen, K. B., 15 Sept 2019, In: Energy and Buildings. 199, 15 September, p. 287-296 10 p.

End-users' opinion on living in multi-family Nearly Zero Energy Buildings

Zavrl, M. Š., Jacimovic, M., Erhorn-Kluttig, H., Erhorn, H., Illner, M., Thomsen, K. E., Wittchen, K. B., Mørck, O., Sanchez Mayoral Gutierrez, M., Zinzi, M., Mattoni, B. & Fasano, G., Sept 2019, In: IOP Conference Series: Materials Science and Engineering. 609, 7, p. 1-6 6 p., 072053.

Life-cycle cost and environmental assessment of nearly zero-energy buildings (NZEBS) in four European countries

Mørck, O., Sanchez Mayoral Gutierrez, M., Thomsen, K. E. & Wittchen, K. B., Sept 2019, In: IOP Conference Series: Materials Science and Engineering. 609, 7, p. 1-6 072005.

Solutions sets for cost optimisation of nearly zero energy buildings (NZEBS) in four European countries

Wittchen, K. B., Thomsen, K. E., Mørck, O., Erhorn-Kluttig, H., Erhorn, H., Illner, M., Sanchez Mayoral Gutierrez, M., Zinzi, M., Mattoni, B., Fasano, G., Zavrl, M. Š. & Jacimovic, M., Sept 2019, In: IOP Conference Series: Materials Science and Engineering. 609, 7, p. 1-6 6 p., 072055.

Life cycle assessment of typical multi-family houses with different energy performance levels: Deliverable D7.1

Sanchez Mayoral Gutierrez, M., Mørck, O., Thomsen, K. E., Wittchen, K. B., Illner, M., Erhorn-Kluttig, H., Erhorn, H., Mattoni, B., Zinzi, M., Jačimović, M. & Zavrl, M. Š., 31 Jul 2019, 164 p.

Documentation of the performance gap

Jensen, S. Ø., Wittchen, K. B. & Rose, J., 10 Apr 2019. 5 p.

Solution sets and technologies for NZEBs: Solution sets for the Cost reduction of new Nearly Zero-Energy Buildings – CoNZEBs

Wittchen, K. B., Thomsen, K. E., Mørck, O., Sanchez Mayoral Gutierrez, M., Balslev-Olesen, O., Illner, M., Erhorn-Kluttig, H., Erhorn, H., Zinzi, M., Mattoni, B. & Zavrl, M. Š., 31 Jan 2019, 127 p.

Hvorfor er næsten nul-energi bygninger det rigtige valg? Erfaringer, forventninger samt fordele ved at bo i lavenergiboliger

Thomsen, K. E., Wittchen, K. B., Mørck, O., Balslev, O., Sanchez Mayoral Gutierrez, M. & Jungshoved, M., 2019, 20 p. Ljubljana, Slovenia : Gradbeni inštitut ZRMK d.o.o. Dimičeva 12, 1000 Ljubljana, Slovenia.

Improving the Accuracy of Archetype Building Stock Energy Models

Brøgger, M. & Wittchen, K. B., 2019.

Estimating the influence of rebound effects on the energy-saving potential in building stocks

Brøgger, M., Bacher, P., Madsen, H. & Wittchen, K. B., 15 Dec 2018, In: Energy and Buildings. 181, p. 62-74 13 p.

BOLIG+ Energineutrale etageboliger: Måling og evaluering

Jensen, S. Ø., Wittchen, K. B. & Knudsen, H. N., Dec 2018, København: Statens Byggeforskningsinstitut, Aalborg Universitet. 140 p. (SBI-rapport; No. 12, Vol. 2018).

Quantifying Uncertainties in an Archetype-Based Building Stock Energy Model by Use of Individual Building Models

Brøgger, M. & Wittchen, K. B., Dec 2018, In: International Scholarly and Scientific Research & Innovation. 12, 9, p. 611-618 8 p.

Assessment and exemplary solutions for cost reduction in the design and construction process

Zinzi, M., Mattoni, B., Fasano, G., Erhorn-Kluttig, H., Illner, M., Bergmann, A., Erhorn, H., Mørck, O., Balslev-Olesen, O., Thomsen, K. E., Wittchen, K. B., Zavrl, M. Š., Jejčič, N. & Jačimović, M., 18 Oct 2018, 214 p.

Anvisning om Bygningsreglement 2018

Hansen, E. J. D. P., Ginnerup, S., Sigbrand, L., Jensen, O. M., Brandt, E., Morelli, M., Buch-Hansen, T. C., Møller, E. B., Kirkeby, I. M., Kragh, J., Aggerholm, S., Wittchen, K. B., Dahl Sørensen, R., Gunnarsen, L. B., Rasmussen, T. V.,

Aagaard, N. J., Rasmussen, B., Johnsen, K., Bergsøe, N. C. & Sørensen, L. S., 1 Sept 2018, 1. ed. København: Statens Byggeforskningsinstitut, Aalborg Universitet. 630 p. (SBI-anvisning; No. 272).

Energy savings due to internal façade insulation in historic buildings

Hansen, E. J. D. P. & Wittchen, K. B., Sept 2018, *Energy Efficiency in Historic Buildings: Conference Report*. Broström, T., Nilsen, L. & Carlsten, S. (eds.). 1 ed. Uppsala: Uppsala University, Department of Art History, p. 22-31 10 p.

Innovative technologies: Experiences from new buildings

Wittchen, K. B., Thomsen, K. E., Erhorn, H. & Erhorn-Kluttig, H., 20 Apr 2018, *Concerted Action: Energy Performance of Buildings*. 4 p.

Primary Energy Factors and Members States Energy Regulations: Primary factors and the EPBD

Hitchin, R., Thomsen, K. E. & Wittchen, K. B., 20 Apr 2018, *Concerted Action: Energy Performance of Buildings*. 4 p.

Estimating the energy-saving potential in national building stocks - A methodology review

Brøgger, M. & Wittchen, K. B., 2018, In: *Renewable and Sustainable Energy Reviews*. 82, Part 1, p. 1489-1496 8 p.

Life-cycle assessment of near zero energy buildings (NZEB) in comparison with regular new buildings

Mørck, O., Thomsen, K. E. & Wittchen, K. B., 2018, *Conference Proceedings: 3rd International Conference on Applied Mineralogy & Advanced Materials - MMS2018*. Digilabs, p. 12-17 6 p. (Proscience, Vol. 6).

Robust Internal Thermal Insulation of Historic Buildings: Report and tool: Probability based Life Cycle Impact Assessment

di Giuseppe, E., D'Orazio, M., Favi, C., Rossi, M., Lasvaux, S., Padey, P., Favre, D., Wittchen, K. B., Du, G., Nielsen, A., Blumberga, A. & Kamendere, E., 31 Dec 2017, European Commission. 191 p.

Overview of Cost Baselines for three Building Levels: Solution sets for the Cost reduction of new Nearly Zero-Energy Buildings – CoNZEBs

Erhorn-Kluttig, H., Erhorn, H., Utesch, B., Wittchen, K. B., Thomsen, K. E., Mørck, O., Baslev-Olsen, O., Jungshoved, M., Zinzi, M., Mattoni, B., Zavrl, M. Š. & Varšek, D., 17 Dec 2017, 87 p.

Varmebesparelse i eksisterende bygninger: Potentiale og økonomi

Wittchen, K. B., Aggerholm, S. & Kragh, J., 28 Nov 2017, København: Statens Byggeforskningsinstitut, SBI. 42 p. (SBI Forskning; No. 16, Vol. 2017).

Technical Elements (CCT1): Status in November 2016

Thomsen, K. E. & Wittchen, K. B., 2 Nov 2017, 15 p.

Anvisning om Bygningsreglement 2015

Hansen, E. J. D. P., Ginnerup, S., Stang, B. F. D., Kirkeby, I. M., Buch-Hansen, T. C., Brandt, E., Aagaard, N. J., Sørensen, L. S., Bergsøe, N. C., Rasmussen, B., Hoffmeyer, D., Aggerholm, S., Kragh, J. & Wittchen, K. B., Oct 2017, 3. ed. København: SBI Forlag. 448 p. (SBI-anvisning; No. 258).

Danmarks første energineutrale etageboliger

Østergaard Jensen, S., Grimmig, M., Dyck-Madsen, S., Øhlenschläger, R. & Wittchen, K. B., Apr 2017, In: *HVAC Magasinet*. 2017, 4, p. 20-24

Flexible building stock modelling with array-programming

Brøgger, M. & Wittchen, K. B., 2017, *Proceedings of the 15th IBPSA Conference San Francisco, CA, USA, Aug. 7-9, 2017*. Barnaby, C. S. & Wetter, M. (eds.). IBPSA, p. 1027-1036 10 p. (Building Simulation Conference proceedings).

Net ZEB case study buildings, measures and solution sets

Aelenei, L., Waldren, D., Aelenei, D., Cúbi, E., Wittchen, K. B. & Kim, J-T., 2017, *Solution sets for Net Zero Energy Buildings: Feedback from 30 Buildings Worldwide*. Garde, F., Ayoub, J., Aelenei, D., Aelenei, L. & Scognamiglio, A. (eds.). Germany: Wiley, p. 39-102

Energy performance certificate classifications across shifting frameworks

Brøgger, M. & Wittchen, K. B., 18 Oct 2016, In: *Procedia Engineering*. 161, p. 845 – 849 5 p.

Skal man skrue ned for radiatoren, når man lufter ud?

Wittchen, K. B., 6 Sept 2016, *Hvorfor må man ikke sige nejer?: 77 videnskabelige svar på små og store spørgsmål, du støder på til daglig*. 1. udgave ed. København: Politikens Forlag, p. 121-122 2 p.

Anvisning om Bygningsreglement 2015

Hansen, E. J. D. P., Ginnerup, S., Stang, B. F. D., Kirkeby, I. M., Buch-Hansen, T. C., Brandt, E., Aagaard, N. J., Sørensen, L. S., Bergsøe, N. C., Rasmussen, B., Hoffmeyer, D., Aggerholm, S., Kragh, J. & Wittchen, K. B., Aug 2016, 2. udgave ed. København: SBI Forlag. 438 p. (SBI-anvisning; No. 258).

Potential heat savings during ongoing renovation of buildings until 2050

Wittchen, K. B., Kragh, J. & Aggerholm, S., Feb 2016, 1 ed. København: SBI forlag. 73 p. (SBI; No. 2016:04).

Anvisning om Bygningsreglement 2015

Hansen, E. J. D. P., Ginnerup, S., Stang, B. F. D., Kirkeby, I. M., Buch-Hansen, T. C., Brandt, E., Aagaard, N. J., Sørensen, L. S., Bergsøe, N. C., Rasmussen, B., Hoffmeyer, D., Aggerholm, S., Kragh, J. & Wittchen, K. B., Jan 2016, 1. ed. København: SBI forlag. 438 p. (SBI-anvisning; No. 258).

Application of Energy Performance Indicators for Residential Building Stocks: Experiences of the EPISCOPE project

Stein, B. (ed.), Wittchen, K. B., Kragh, J., Diefenbach, N., Loga, T., Arcipowska, A., Rakušček, A., Zavrl, M. Š., Altmann, N., Hulme, J., Riley, J., Dascalaki, E., Balaras, C., Cuypers, D., Van Holm, M., Corrado, V., Ballarini, I., Vimmr, T., Hanratty, M., Sheldrick, B., & 14 othersRoarty, C., Csoknyai, T., Szendrő, G., Hrabovszky-Horváth, S., Ortega, L., Serghides, D., Katafygiotou, M., Nieboer, N., Filippidou, F., Rochard, U., Shanthirabalan, S., Bratlebö, H., Jovanovic Popovic, M. & Ignjatovic, D., 2016, EPISCOPE. 41 p.

Byggematerialers indflydelse på indendørs mobildækning

Wittchen, K. B., 2016, *Indendørs Mobildækning*. København: Energistyrelsen, 4 p.

Danish building typologies and building stock analyses: Participation in the EPISCOPE project

Wittchen, K. B. & Kragh, J., 2016, 1. udgave ed. København: SBI Forlag. 17 p. (SBI; No. 2016:18).

Potential heat savings during ongoing renovations of buildings until 2050

Wittchen, K. B., Kragh, J. & Aggerholm, S., 2016, 1 ed. København: SBI forlag. 73 p. (SBI; No. 04, Vol. 2016).

Local initiative extrapolated to nation: Denmark

Wittchen, K. B., Kragh, J. & Brøgger, M., 18 Nov 2015.

Local initiative extrapolated to nation: Denmark

Wittchen, K. B., Kragh, J. & Brøgger, M., 18 Nov 2015.

Implications of cost optimum calculations on energy performance requirements in Member States

Thomsen, K. E. & Wittchen, K. B., Nov 2015, 9 p.

Energy performance requirements using cost-optimal levels: Overview and outcomes

Thomsen, K. E. & Wittchen, K. B., Sept 2015, *2016 – Implementing the Energy Performance of Buildings Directive (EPBD) : Featuring country reports*. Maldonado, E. (ed.). Lisbon: Portuguese Energy Agency (ADENE), Vol. Part A. p. 41-56 16 p.

Implementation of the EPBD in Denmark: Status in December 2014

Thomsen, K. E., Wittchen, K. B., Ostertag, B., Bruus Varming, N., Thers Egesberg, L. & Hartung, T., Sept 2015, *Implementing the Energy Performance of Buildings Directive (EPBD): Featuring country reports*. Maldonado, E. (ed.). Lisbon: Portuguese Energy Agency (ADENE), p. 243-258 16 p.

Implementation of Demand Side Flexibility from the perspective of Europe's Energy Directives: A Joint Working Group Report from the Concerted Actions for the Energy Efficiency Directive (EED), Renewable Energy Source (RES) Directive & Energy Building Performance Directive (EPBD)

Edelenbos, E., Togeby, M. & Wittchen, K. B., 21 Aug 2015, 31 p.

Control strategies for intelligent glazed façade and their influence on energy and comfort performance of office buildings in Denmark

Liu, M., Wittchen, K. B. & Heiselberg, P., 1 May 2015, In: Applied Energy. 145, 1 May, p. 43-51 9 p.

How to estimate realistic energy savings in Energy Performance Certificates

Wittchen, K. B., Altmann, N. & Berecová, M., Apr 2015, 15 p.

Joint working group session report. Concerted Action EPBD

Wittchen, K. B. & Edelenbos, E., Apr 2015, 8 p.

Technical Building Systems (TBS) – differences between new and existing buildings

Wittchen, K. B. & Griffiths, W., Apr 2015, 21 p.

Technical building systems in existing and new buildings: Denmark

Wittchen, K. B. & Thomsen, K. E., 4 Mar 2015. 1 p.

Technical building systems in existing and new buildings: Denmark

Wittchen, K. B. & Thomsen, K. E., 4 Mar 2015.

Verification of a simplified method for intelligent glazed façade design under different control strategies in a full-scale façade test facility: Preliminary results of a south facing single zone experiment for a limited summer period

Liu, M., Wittchen, K. B. & Heiselberg, P. K., 19 Sept 2014, In: Building and Environment. 82, December, p. 400-407 8 p.

Energinøtralt Byggeri: Tekniske løsninger

Wittchen, K. B. (ed.), Østergaard Jensen, S. (ed.), Brand, M., Christensen, C. H., Galiotto, N., Heiselberg, P., Iqbal, A., Østergaard Jensen, S., Johnsen, K., Katic, I., Lauritsen, D., Dreau, J. L., Liu, M., Lund, H., Marszal, A. J., Milan, C., Mortensen, A., Nielsen, S., Pavlov, G. K., Tahersima, F., & 2 others Winther, F. V. & Wittchen, K. B., May 2014, 1. udgave ed. København: SBI forlag. 68 p.

Potentielle varmebesparelser ved løbende bygningsrenovering frem til 2050

Wittchen, K. B., Kragh, J. & Aggerholm, S., Apr 2014, 1 ed. København: SBI forlag. 59 p. (SBI; No. 01, Vol. 2014).

Development and sensitivity study of a simplified and dynamic method for double glazing facade and verified by a full-scale façade element

Liu, M., Wittchen, K. B., Heiselberg, P. & Winther, F. V., Jan 2014, In: Energy and Buildings. 68, Part A, p. 432-443 12 p.

Development of two Danish building typologies for residential buildings

Kragh, J. & Wittchen, K. B., Jan 2014, In: Energy and Buildings. 68, Part A, p. 79-86 8 p.

Development of a simplified method for intelligent glazed façade design under different control strategies and verified by building simulation tool BSim

Liu, M., Wittchen, K. B. & Heiselberg, P., 2014, In: Building and Environment. 74, April, p. 31-38 8 p.

Energy savings in the Danish building stock until 2050

Wittchen, K. B. & Kragh, J., 2014, *NSB 2014: 10th Nordic Symposium on Building Physics 15-19 June 2014 Lund, Sweden: Full papers*. Arvidsson, J., Harderup, L-E., Kumlin, A. & Rosencrantz, B. (eds.). Lund, Sweden: Lunds Tekniska Högskola, LTH. Institutionen för Byggnadsteknik, p. 1277-1284 8 p. 159

Energy savings in the Danish building stock until 2050

Wittchen, K. B. & Kragh, J., 2014, *NSB 2014: 10th Nordic Symposium on Building Physics 15-19 June 2014 Lund, Sweden: Abstract book*. Arvidsson, J., Harderup, L-E., Kumlin, A. & Rosencrantz, B. (eds.). Lund, Sweden: Lunds Tekniska Högskola, LTH. Institutionen för Byggnadsteknik, p. 177 1 p. 159

Heat Saving Strategies in Sustainable Smart Energy Systems

Lund, H., Thellufsen, J. Z., Aggerholm, S., Wittchen, K. B., Nielsen, S., Mathiesen, B. V. & Möller, B., 2014, 2014-1 ed. Institut for Planlægning, Aalborg Universitet. 86 p. (DDP-Publication series, Vol. 2014-1).

Heat Saving Strategies in Sustainable Smart Energy Systems

Lund, H., Thellufsen, J. Z., Aggerholm, S., Wittchen, K. B., Nielsen, S., Mathiesen, B. V. & Möller, B., 2014, In: *International Journal of Sustainable Energy Planning and Management*. 4, p. 1-15

Heat Saving Strategies in Sustainable Smart Energy Systems

Lund, H., Thellufsen, J. Z., Aggerholm, S., Wittchen, K. B., Nielsen, S., Mathiesen, B. V. & Møller, B., 2014, In: *International Journal of Sustainable Energy Planning and Management*.

Sensitivity analysis of the energy demand of existing buildings based on the Danish Building and Dwelling Register

Nielsen, A., Wittchen, K. B. & Bertelsen, N. H., 2014, *NSB 2014: 10th Nordic Symposium on Building Physics 15-19 June 2014 Lund, Sweden: Full papers*. Arvidsson, J., Harderup, L-E., Kumlin, A. & Rosencrantz, B. (eds.). Lund, Sweden: Lunds Tekniska Högskola, LTH. Institutionen för Byggnadsteknik, p. 271-278 8 p. 34

Sensitivity analysis of the energy demand of existing buildings based on the Danish Building and Dwelling Register (BBR)

Nielsen, A., Wittchen, K. B. & Bertelsen, N. H., 2014, *NSB 2014: 10th Nordic Symposium on Building Physics 15-19 June 2014 Lund, Sweden: Abstract book*. Arvidsson, J., Harderup, L-E., Kumlin, A. & Rosencrantz, B. (eds.). Lund, Sweden: Lunds Tekniska Högskola, LTH. Institutionen för Byggnadsteknik, p. 46 1 p. 34

Energy performance requirements using the cost-optimal methodology

Wittchen, K. B. & Thomsen, K. E., Oct 2013, *Implementing the Energy Performance of Buildings Directive (EPBD): Featuring country reports 2012*. Sutherland, G., Maldonado, E., Wouters, P. & Papaglastra, M. (eds.). 2 ed. Porto: Portuguese Energy Agency (ADENE), p. 37-46 10 p.

EPBD implementation in Denmark

Wittchen, K. B., Thomsen, K. E., Malmsteen, M. & Mehlsen, E. S., Oct 2013, *Implementing the Energy Performance of Buildings Directive (EPBD): Featuring country reports 2012*. Sutherland, G., Maldonado, E., Wouters, P. & Papaglastra, M. (eds.). 2 ed. Porto: Portuguese Energy Agency (ADENE), p. 157-166 10 p.

EPBD implementation in Denmark

Wittchen, K. B., Thomsen, K. E., Malmsteen, M. & Mehlsen, E. S., Oct 2013, *Implementing the Energy Performance of Buildings Directive (EPBD)*.

2001 – 2010 Danish Design Reference Year: Reference Climate Dataset for Technical Dimensioning in Building, Construction and other Sectors

Grunnet Wang, P., Scharling, M., Pagh Nielsen, K., Kern-Hansen, C. & Wittchen, K. B., Sept 2013, Danmarks Meteorologiske Institut. 34 p. (DMI Technical Report; No. 13-19).

2001 – 2010 Dansk Design Reference Year Supplerende datasæt: Projekt rapport til Energistyrelsen: Data til teknisk dimensionering for parametrene atmosfæretryk, vindretning, skydække, vandtemperatur og jordtemperatur samt data til byggesagsbehandling

Grunnet Wang, P., Scharling, M., Wittchen, K. B. & Kern-Hansen, C., Sept 2013, København: Danmarks Meteorologiske Institut. 34 p. (DMI Teknisk Rapport; No. 13-18).

A Method to Estimate Energy Demand in Existing Buildings Based on the Danish Building and Dwellings Register (BBR)

Nielsen, A., Bertelsen, N. H. & Wittchen, K. B., 16 Jun 2013, *Proceedings of Clima 2013: 11th REHVA World Congress and the 8th International Conference on Indoor Air Quality, Ventilation and Energy Conservation in Buildings*. Kabele, K., Urban, M., Suchý, K. & Lain, M. (eds.). 1st edition ed. Prag: Society of Environmental Engineering (STP), 11 p.

Energy performance requirements using the cost-optimal methodology

Wittchen, K. B. & Thomsen, K. E., Jun 2013, *Implementing the Energy Performance of Buildings Directive (EPBD): Featuring country reports 2012*. Sutherland, G., Maldonado, E., Wouters, P. & Papaglastra, M. (eds.). Porto: Portuguese Energy Agency (ADENE), p. 37-46 10 p.

Energy performance requirements using the cost-optimal methodology

Wittchen, K. B. & Thomsen, K. E., Jun 2013, *Implementing the Energy Performance of Buildings Directive (EPBD)*.

EPBD implementation in Denmark

Wittchen, K. B., Thomsen, K. E., Malmsteen, M. & Mehlsen, E. S., Jun 2013, *Implementing the Energy Performance of Buildings Directive (EPBD): Featuring country reports 2012*. Sutherland, G., Maldonado, E., Wouters, P. & Papaglastra, M. (eds.). Porto: Portuguese Energy Agency (ADENE), p. 157-166 10 p.

Udtjente bygninger og bygningsrenovering: Netværk for energirenovering

Wittchen, K. B. & Kragh, J., Jun 2013, København: SBI forlag. 13 p. (SBI; No. 16, Vol. 2013).

Varmebesparelser ved løbende bygningsrenovering frem til 2050: Netværk for energirenovering

Wittchen, K. B. & Kragh, J., Mar 2013, København: SBI forlag. 30 p. (SBI; No. 08, Vol. 2013).

Development of a simplified and dynamic method for double glazing façade with night insulation and validated by full-scale façade element

Liu, M., Wittchen, K. B., Heiselberg, P. & Winther, F. V., 2013, In: *Energy and Buildings*. 58, p. 163–171 9 p.

Danish building typologies: Participation in the TABULA project

Wittchen, K. B. & Kragh, J., Sept 2012, Hørsholm: SBI forlag. 89 p. (SBI; No. 1, Vol. 2012).

CT4 - Cost-Optimum Procedures: Implementation, step-by-step

Thomsen, K. E. & Wittchen, K. B., Jul 2012, 18 p.

Requirements for existing buildings: CT4: Cost-Optimum Procedures

Thomsen, K. E. & Wittchen, K. B., Jul 2012, 10 p.

Requirements for existing buildings: CT4: Cost-Optimum Procedures

Thomsen, K. E. & Wittchen, K. B., Jul 2012

Building typologies in the Nordic countries: Identification of potential energy saving measures

Wittchen, K. B., Mortensen, L. H., Holøs, S., Björk, N. F., Vares, S. & Malmqvist, T., Mar 2012, Hørsholm: SBI forlag. 83 p. (SBI; No. 04, Vol. 2012).

Implementation of the cost-optimal methodology according to the EPBD recast

Wittchen, K. B. & Thomsen, K. E., Mar 2012, In: *REHVA Journal*. 49, 3, p. 46-47 2 p.

Introducing cost-optimal levels for energy requirements

Wittchen, K. B. & Thomsen, K. E., Mar 2012, In: *REHVA Journal*. 49, 03, p. 25-29 5 p.

Application of Building Typologies for Modelling the Energy Balance of the Residential Building Stock

Diefenbach, N. (ed.), Loga, T. (ed.), Dascalaki, E., Balaras, C., Završ, M. Š., Rakušček, A., Corrado, V., Corgnati, S., Ballarini, I., Renders, N., Vimmr, T., Wittchen, K. B. & Kragh, J., Feb 2012, Darmstadt: INSTITUT WOHNEN UND UMWELT GmbH. 72 p. (TABULA Thematic Report; No. 2).

Bygningstypologier

Kragh, J. & Wittchen, K. B., 2012, 108 p.

Development of Simplified and Dynamic Model for Double Glazing Unit Validated with Full-Scale Facade Element

Liu, M., Wittchen, K. B., Heiselberg, P. & Winther, F. V., 2012, *PLEA 2012 Lima Peru - Opportunities, Limits & Needs: Towards an environmentally responsible architecture*. Lima, Peru: The International Conference on Sustainable Architecture + Urban Design, 7 p.

Task Force. Netværk for energirenovering: Indsamling og præsentation af eksisterende kerneviden om energirenovering af eksisterende bygninger

Thomsen, K. E., Knudsen, H. N., Mortensen, L. H., Aggerholm, S., Jensen, O. M. & Wittchen, K. B., 2012, SBI forlag. 96 p. (SBI; No. 09, Vol. 2012).

Cost-optimal levels for energy performance requirements: The Concerted Action's input to the Framework Methodology

Wittchen, K. B. (ed.), Thomsen, K. E., Aggerholm, S., Kluttig-Erhorn, H., Erhorn, H., Poel, B. & Hitchin, R., 20 Dec 2011, 75 p.

Cost-optimal levels for energy performance requirements: The Concerted Action's input to the Framework Methodology

Wittchen, K. B. (ed.), Thomsen, K. E., Aggerholm, S., Kluttig-Erhorn, H., Erhorn, H., Poel, B. & Hitchin, R., 20 Dec 2011

Energioptimering af kontorbygninger

Treldal, J., Radisch, N. H., Hansen, E. J. D. P. & Wittchen, K. B., Sept 2011, 1. ed. Hørsholm: SBI forlag. 14 p.

Cost optimal levels for energy performance requirements: Executive summary

Wittchen, K. B. (ed.), Thomsen, K. E., Aggerholm, S., Kluttig-Erhorn, H., Erhorn, H., Poel, B. & Hitchin, R., 1 Jul 2011, European Commission. 36 p.

Energioptimering af kontorbyggeri

Wittchen, K. B., Hansen, E. J. D. P., Radish, N. & Treldal, J., May 2011, 1 ed. Hørsholm: SBI forlag. 130 p. (SBI; No. 16, Vol. 2011).

Certification: Core Theme 1

Thomsen, K. E. & Wittchen, K. B., Apr 2011, *Implementing the Energy Performance of Buildings Directive (EPBD): Featuring Country Reports 2010*. Brussels: European Commission, Vol. 1. p. 3-49 46 p.

Certification: Core Theme 1

Thomsen, K. E. & Wittchen, K. B., Apr 2011, *Implementing the Energy Performance of Buildings Directive (EPBD)*.

Implementation of the EPBD in Denmark: Status in November 2010

Aggerholm, S., Thomsen, K. E. & Wittchen, K. B., Apr 2011, *Implementing the Energy Performance of Buildings Directive (EPBD): Featuring Country Reports 2010*. Brussels: European Commission, p. 91-102 12 p.

Automatisk energirammeberegning for den eksisterende bygningsmasse: Redegørelse til Erhvervs- og Byggestyrelsen med forslag til en fremtidig realisering

Nielsen, A., Bertelsen, N. H., Sørensen, N. L. & Wittchen, K. B., 2011, 1. udgave ed. SBI forlag. 94 p. (SBI; No. 20, Vol. 2011).

BSim: User's Guide

Wittchen, K. B. (ed.), Sørensen, K. G., Johnsen, K. & Rose, J., 2011, Hørsholm : SBI forlag.

BSim: User's Guide

Wittchen, K. B. (ed.), Sørensen, K. G., Johnsen, K. & Rose, J., 2011

Energy saving potentials – A case study on the Danish building stock: presentation

Wittchen, K. B., Kragh, J. & Jensen, O. M., 2011, *ECEEE 2011 SUMMER STUDY: Energy efficiency first: The foundation of a low-carbon society*. 1 ed. Stockholm: European Council for an Energy Efficient Economy, ECEEE, Vol. 3. p. 1355-1363 9 p.

Energy saving potentials – A case study on the Danish building stock

Wittchen, K. B., Kragh, J. & Jensen, O. M., 2011, *ECEEE 2011 Summer Study: Energy efficiency first: The foundation of a low-carbon society*. 1 ed. Stockholm: European Council for an Energy Efficient Economy, ECEEE, Vol. 1. p. 139

Energy saving potentials – A case study on the Danish building stock

Wittchen, K. B., 2011, 9 p.

Energy saving potentials – A case study on the Danish building stock: presentation

Wittchen, K. B., Kragh, J. & Jensen, O. M., 2011, *ECEEE 2011 SUMMER STUDY*.

Konkurrence om Pulsen. Fremtidens bæredygtige multihus

Frølich, T., Eskildsen, F., Sørensen, K., Bech-Danielsen, C. & Wittchen, K. B., 2011, 37 p. København : Akademisk Arkitektforening.

Pulsens multihus

Weyer, J., Nielsen, S., Bech-Danielsen, C. & Wittchen, K. B., 2011, In: *Arkitekten*. 2011, 12

Danske bygningers energibehov i 2050

Kragh, J. & Wittchen, K. B., Dec 2010, Hørsholm: SBI forlag.

CT1, Lessons learned in CA2

Wittchen, K. B. & Thomsen, K. E., 25 Oct 2010, 16 p.

Rescaling Certificates

Wittchen, K. B., 25 Oct 2010, 16 p.

BOLIG+: An energy neutral multifamily building

Wittchen, K. B., Jensen, S. Ø., Kamper, S. & Kvist, L., 29 Sept 2010, *Proceedings of EuroSun 2010*. 8 p.

Use of Building Typologies for Energy Performance Assessment of National Building Stocks. Existent Experiences in European Countries and Common Approach

Loga, T. (ed.), Diefenbach, N. (ed.), Wittchen, K. B., Kragh, J., Balaras, C., Dascalaki, E., Zavrli, M. Š., Rakušček, A., Corrado, V., Corgnati, S., Despretz, H., Roarty, C., Hanratty, M., Sheldrick, B., Cyx, W., Popiolek, M., Kwiatkowski, J., Groß, M., Spitzbart, C., Georgiev, Z., & 2 others Iakimova, S. & Vimmr, T., Jun 2010, Darmstadt : INSTITUT WOHNEN UND UMWELT GmbH. 160 p.

Energireovering af kontorbygning: Eksempel: Det Farmaceutiske Fakultet, Bygning 30

Wittchen, K. B. & Weitzmann, P., 2010, Statens Byggeforskningsinstitut, SBI. 34 p. (SBI; No. 49, Vol. 2010).

Extracting added value from EPC databases: Report from EPBD Concerted Action II plenary meeting, Amsterdam 21.-22. January, 2010

Wittchen, K. B. & an Diggelen, L., 2010

Thresholds related to renovation of buildings: EPBD definitions and rules

Thomsen, K. E., Wittchen, K. B., Erhorn-Kluttig, H. & Erhorn, H., 4 Feb 2009, In: www.buildingsplatform.org. p. 1-7

Thresholds related to renovation of buildings: EPBD definitions and rules

Thomsen, K. E., Wittchen, K. B., Erhorn-Kluttig, H. & Erhorn, H., 4 Feb 2009, In: www.buildingsplatform.org.

BSim: Brugervejledning

Wittchen, K. B., Sørensen, K. G., Johnsen, K. & Rose, J., 2009, Hørsholm : SBI forlag.

BSim: User's Guide

Wittchen, K. B., Sørensen, K. G., Johnsen, K. & Rose, J., 2009, Hørsholm : SBI forlag.

Certification of flats and blocks of flats: Report from EPBD Concerted Action II plenary meeting in Prague, 1-2 December 2008

Wittchen, K. B. & Thomsen, K. E., 2009, Hørsholm, 12 p.

Database management: Report from EPBD Concerted Action II plenary meeting, Berlin 15.-16. June, 2009

Wittchen, K. B. & van Diggelen, L., 2009, Hørsholm, 32 p.

Database management: Report from EPBD Concerted Action II plenary meeting, Berlin 15.-16. June, 2009

Wittchen, K. B. & van Diggelen, L., 2009

Energy and carbon impact of very low energy building

Dyrbøl, S., Eriksen, K. E., Thomsen, K. E., Wittchen, K. B. & Jensen, O. M., 2009, *Conference proceedings: ECEEE 2009 Summer Study Proceedings. Act! Innovate! Deliver! Reducing energy demand sustainably*. Samlignsnummer för enstaka enskilt utgivna arbeteb, Vol. Volume 4. p. 1553-1560

Grundvandsvarmepumper og -køling med grundvandsmagasiner som sæsonlager

Sørensen, S. N., Wittchen, K. B., Riis, J. C., Balslev-Olesen, O. & Jakobsen, F. H., 2009, Hellerup: EnOpSol. 27 p.

Potentielle energibesparelser i det eksisterende byggeri

Wittchen, K. B., 2009, Hørsholm: SBI forlag. 38 p. (SBI; No. 2009:05).

Summary report on certification of flats and blocks of flats: Report from EPBD Concerted Action II plenary meetings in Warsaw, Lyon, and Prague

Wittchen, K. B. & Thomsen, K. E., 2009, Hørsholm, 17 p.

Thresholds related to renovation of buildings: EPBD definitions and rules

Thomsen, K. E., Wittchen, K. B., Erhorn, H. & Erhorn-Kluttig, H., 2009, 1 ed. Hørsholm: SBI forlag. (SBI; No. 2009:02).

Towards very low energy buildings: Energy saving and CO2 emission reduction by changing European building regulations to very low energy standards

Jensen, O. M., Wittchen, K. B., Thomsen, K. E., Dyrbøl, S., Albæk, T., Eriksen, K. E., Wilberforce, R., Baes, M., Levy, M. & Delpino, E., 2009, 1 ed. Hørsholm: SBI forlag. 40 p. (SBI; No. 2009:03).

Analyse af energimærker for parcelhuse

Wittchen, K. B., 2008, Statens Byggeforskningsinstitut, SBI. 16 p. (SBI; No. 22, Vol. 2008).

Be06 - Beregningsvejledning

Aggerholm, S., Sørensen, K. G. & Wittchen, K. B., 2008, Hørsholm

BSim - Brugervejledning

Wittchen, K. B., Johnsen, K., Sørensen, K. G. & Rose, J., 2008, Hørsholm

BSim - Brugervejledning

Wittchen, K. B., Johnsen, K., Sørensen, K. G. & Rose, J., 2008

BSim - User's Guide

Wittchen, K. B., Johnsen, K., Sørensen, K. G. & Rose, J., 2008, Hørsholm

Combining building thermal simulation methods and LCA methods

Pedersen, F., Hansen, K., Wittchen, K. B., Sørensen, K. G. & Johnsen, K., 2008, *Proceedings of the 8th Symposium on Building Physics in the Nordic Countries: Nordic Symposium on Building Physics 2008, NSB2008*. Rode, C. (ed.). Technical University of Denmark (DTU), Vol. 2. p. 605-611 (BYGDTU Report; No. R-189).

Energy performance requirements for new buildings in 11 countries from Central Europe: Exemplary comparison of three buildings

Loga, T., Knissel, J., Diefenbach, N., Grim, M., Vimmr, T., Popiolek, M., Spets, K., Wittchen, K. B., Bergsøe, N. C., Hitchin, R., Yan, V., van Cruchten, G., Berben, J., Tilmans, A., Van Orshoven, D., Viktor, S., Lichtmess, M. & Despretz, H., 2008, Darmstadt: Institut Wohnen und Umwelt.

European national strategies to move towards very low energy buildings

Wittchen, K. B. & Thomsen, K. E., 2008, Hørsholm: SBI forlag. 33 p. (SBI; No. 2008:07).

Member State approach towards a strategy for passive/very low-energy buildings

Dyrbøl, S., Thomsen, K. E. & Wittchen, K. B., 2008, *Passivhus Norden 2008 Conference Proceedings: Den første nordiske passivhuskonferanse*. SINTEF, p. 236-241

Applying the EPBD to improve the Energy Performance Requirements to Existing Buildings - ENPER-EXIST

Thomsen, K. E., Wittchen, K. B., Jensen, O. M. & Aggerholm, S., 2007, Stuttgart: <http://www.enper-exist.com/>. 117 p.

BSim: Building Simulation

Wittchen, K. B., Johnsen, K. & Sørensen, K. G., 2007

Danish EPA-NR pilot studies

Wittchen, K. B., 2007, *Overall report on the pilot projects: Final report, June 2007*. Lahrech, R. (ed.). Paris, France: CSTB, p. 13, 17, 21, 37 4 p.

Danish pilot study - Health care building: National report - Denmark. Final report, June 2007

Wittchen, K. B., 2007, Hørsholm, Danmark: SBI forlag. 22 p.

Development of a 2nd generation energy certificate scheme – Danish experience

Jensen, O. M., Wittchen, K. B., Thomsen, K. E. & Hansen, M. T., 2007, *Eceee 2007 Summer Study*. p. 911-919

Development of a 2nd generation energycertificate scheme - Danish experience

Jensen, O. M., Thomsen, K. E., Wittchen, K. B. & Hansen, M. T., 2007, *Eceee 2007 Summer Study: Saving energy - just do it!*. Samlignsnummer för enstaka enskilt utgivna arbeteb, p. 911-919 9 p.

Energirammeberegninger på universitetsbyggeri: Afprøvning af nye energikrav på Det Farmaceutiske Fakultet, Københavns Universitet

Pedersen, F., Wittchen, K. B. & Bertelsen, N. H., 2007, Hørsholm: SBI forlag. 29 p. (SBI; No. 2007:07).

Energy standards in Denmark

Thomsen, K. E., Wittchen, K. B. & Pedersen, F., 2007, Livingstone: Scottish Building Standards Agency. 38 p.

ENRtool - BesTest results

Wittchen, K. B., 2007, *EPA-NR final reports*. 23 p.

Knowledge extraction from energy certification of buildings - results from the ENPER-EXIST project

Thomsen, K. E., Wittchen, K. B., Jensen, O. M. & Aggerholm, S., 2007, *Building Low Energy, Cooling and Advanced Ventilation, Technologies in the 21st Century*. Santamouris, M. & Wouters, P. (eds.). Heliotopos Conferences, Vol. Volume II. p. 1034-1037 4 p.

Pilot study: Educational building. National report -Denmark

Wittchen, K. B., 2007, Arnhem: EPA, Energy Performance Assessment of Existing Non-Residential Buildings. 24 p.

Pilot study: Educational building. National report -Denmark

Wittchen, K. B., 2007

Pilot study - Office building: National report - Denmark

Wittchen, K. B. & Thomsen, K. E., 2007, Arnhem: EPA, Energy Performance Assessment of Existing Non-Residential Buildings. 24 p.

BSim

Wittchen, K. B., 2005, *Contrasting the capabilities of building energy performance simulation programs*. Crawley, D. B. (ed.). Washington, DC: U.S. Department of Energy ; University of Strathclyde ; University of Wisconsin, p. 231-232

BSim User's Guide

Wittchen, K. B., Johnsen, K. & Sørensen, K. G., 2005, Hørsholm

Energy certification schemes and impact test preparation

Wittchen, K. B., Thomsen, K. E., Bauwens, K. & Jensen, O. M., 2005, Hørsholm. (IMPACT; No. 1).

Survey: National context and need for instruments. Energy performance assessment method for existing dwellings

Balaras, C. A., Wittchen, K. B. & Thomsen, K. E., 2005, Arnhem.

Use of weather forecasts to control night cooling

Wittchen, K. B., Løgberg, E., Pedersen, S., Djurtoft, R. & Thiesen, J., 2005, *Building Simulation 2005*. p. 1347-1353

Aesthetics of PV building integration: Work package 3, task 1

Svensson, O. & Wittchen, K. B., 2004, Göteborg: NCC Construction Sverige. 72 p.

EPA-ED formulas: Calculation scheme. Energy performance assessment method for existing dwellings

Berben, J. J. L., Vis, I., Wittchen, K. B. & Grau, K., 2004, (EPA-ED Report; No. 040538jo).

EPA-ED tool: User's guide

Wittchen, K. B. & Sørensen, K. G., 2004

Guideline for inspection control: EPA-EBD, Energy performance assessment method for existing dwellings

Poel, B., Sonnemans, E., Balaras, C., Wittchen, K. B. & Lechner, R., 2004, Arnhem: EPA-EBD.

Pilot studies: EPA-EBD. Energy performance assessment method for existing dwellings

Balaras, C. A., Wittchen, K. B. & Thomsen, K. E., 2004, Athen: EPA-EBD.

Recommendations on EPA-ED method & tool: Final

Balaras, C. A., Wittchen, K. B. & Thomsen, K. E., 2004, Arnhem: EPA-EBD.

Recommendations on EPA-ED method & tool: Final

Balaras, C. A., Wittchen, K. B. & Thomsen, K. E., 2004

Vurdering af den energimæssige ydeevne for eksisterende boliger: EPA-ED, Energy performance assessment method for existing dwellings

Wittchen, K. B., 2004, Arnhem

Vurdering af potentialet for varmebesparelser i eksisterende boliger

Wittchen, K. B., 2004, Hørsholm: SBI forlag. 56 p. (By og Byg Dokumentation; No. 057).

Benchmarking for existing European dwellings: Appendix II - DENMARK

Balaras, C. A., Dascalaki, E., Geissler, S., Wittchen, K. B. & van Cruchten, G., 2003, *Benchmarking for existing European dwellings: Task 1 final report*. Athen: EPA-EBD

Beregn ydelsen fra solceller med BSim

Wittchen, K. B., 2003, In: Danvak magasinet : VVS, energi, indeklima, bygningsinstallationer. 3, 2, p. 26 1 p.

Building integrated photovoltaics in a thermal building simulation tool

Wittchen, K. B., 2003, *In Building Simulation 2003: Eighth International IBPSA Conference, For better building design*. IBPSA, Vol. 3. p. 1417-1421

Facaderenovering med glas. Et forsøgsbyggeri i ældre etageboligbyggeri: (Projekt Renovering. Projekt nr. 189)

Svensson, O. & Wittchen, K. B., 2003, København: Erhvervs- og Boligstyrelsen. 42 p.

Konkurrenceprojektets miljøprofil - mere end bare ord

Hansen, K., Holleris Petersen, E., Wittchen, K. B. & Attwell, K., 2003, In: Arkitekten. 105, 28, p. 18-19 2 p.

Oplukkelig glasfacade i ny etagebolig: Bogholder Allé 28-32, Vanløse

Thomsen, K. E., Wittchen, K. B. & Friis, N., 2003, Hørsholm: SBI forlag. 30 p. (By og Byg Resultater; No. 030).

Strategy for stimulating rue and res in existing dwellings: EPA-ED Task 2a. Final report

Beerepoot, M., Wittchen, K. B. & Thomsen, K. E., 2003, *Energy Performance Assessment Method for Existing Dwellings, EPA-ED*. Delft: OTB, (OTB Report; No. 0301).

Visualisation of building models

Sørensen, K. G. & Wittchen, K. B., 2003, *In Building Simulation 2003: Eighth International IBPSA Conference, For better building design*. Vol. 1. p. 415-420

Assessment of energy and natural resources conservation in office buildings using TOBUS

Balaras, C. A., Drousa, K., Argiriou, A. A. & Wittchen, K. B., 2002, In: *Energy and Buildings*. 34, 2, p. 135-153 19 p.

BSim2002: Et integreret edb-værktøj til analyse af indeklima og energiforbrug i bygninger

Wittchen, K. B., Sørensen, K. G. & Johnsen, K., 2002, Hørsholm: SBI forlag. (Edb-program).

Development of a methodology for selecting office building upgrading solutions based on a test survey in European buildings

Wittchen, K. B. & Brandt, E., 2002, In: *Energy and Buildings*. 34, 2, p. 163-169 7 p.

Enghavevej 28, København: (Datablad 7, oktober 2002)

Wittchen, K. B. & Svensson, O., 2002, Taastrup

Ingeniøremes Hus, København: (Datablad 8, oktober 2002)

Wittchen, K. B. & Svensson, O., 2002, Taastrup

Solceller i arkitekturen

Wittchen, K. B. & Svensson, O. . C., 2002, Hørsholm: SBI forlag. 75 p. (Udenfor serier).

Solceller i arkitekturen

Clasen, G. & Wittchen, K. B., 2002, In: *Arkitekten*. 104, 11, p. 2-6 5 p.

Solceller i arkitekturen

Wittchen, K. B. & Svensson, O., 2002, Hørsholm : Statens Byggeforskningsinstitut, Aalborg Universitet.

Brundtland Centret, Toftlund: (Datablad 1, januar 2001)

Wittchen, K. B. & Svensson, O., 2001, Taastrup

By og Byg Resultater 005.Facaderenovering med glas: resultater

Wittchen, K. B., 2001, 1. udgave. ed. Hørsholm: Kunstakademiets Arkitektskole; Statens Byggeforskningsinstitut. 19 p.

Datablade om bygningsintegrerede solceller

Wittchen, K. B. & Svensson, O., 2001, In: Danvak magasinet : VVS, energi, indeklima, bygningsinstallationer. 1, 12, p. 24-25

Energibesparelser ved renovering

Wittchen, K. B. & Svensson, O., 2001, In: Danvak magasinet : VVS, energi, indeklima, bygningsinstallationer. 1, 5, p. 76-78

Facaderenovering med glas: Resultater

Wittchen, K. B., 2001, 1. udgave. ed. Hørsholm: SBI forlag. 19 p. (By og Byg Resultater; No. 005).

Facaderenovering med glas: resultater

Wittchen, K. B., 2001, Statens Byggeforskningsinstitut, Aalborg Universitet.

Facaderenovering med glas: By og Byg Resultater 005

Wittchen, K. B., 2001

Lærkelængen, Albertslund: (Datablad 3, januar 2001)

Wittchen, K. B. & Svensson, O., 2001, Taastrup

Solgården, Kolding: (Datablad 2, januar 2001)

Wittchen, K. B. & Svensson, O., 2001, Taastrup

Sundevedsgade, København

Wittchen, K. B. & Svensson, O., 2001, Taastrup

Sundevedsgade / Tøndergade, København

Wittchen, K. B. & Svensson, O., 2001, Taastrup:

Tingbjerg Skole, København

Wittchen, K. B. & Svensson, O., 2001, Taastrup

Tøndergade, København

Wittchen, K. B. & Svensson, O., 2001, Taastrup

Calculation of building heating demand in EPIQR

Wittchen, K. B. & Aggerholm, S., 2000, In: Energy and Buildings. 31, 2, p. 137-141

EPIQR software

Flourentzos, F., Droutsas, K. & Wittchen, K. B., 2000, In: Energy and Buildings. 31, 2, p. 129-136

EPIQR-TOBUS: A new generation of decision-aid tools for selecting building refurbishment strategies

Caccavelli, D., Balaras, C., Gugerli, H., Allehaux, D., Wittchen, K. B., Hjorth Rasmussen, M., Bluysen, P. & Flourentzou, F., 2000, *Proceedings of 2nd International Conference on Decision Making in Urban and Civil Engineering*. Institut National des Sciences Appliquées de Lyon, Vol. 2. p. 777-788

Fem glasfacader: Optimering af energi- og komfortforhold

Stabel Monby, P., Schøtt, M., Vejsig, P., Hummelshøj, R. M., Steffensen, M., Ingvarsen, N., Rasmussen, M., Bruun Jørgensen, O., Gramkow, L., Lorentzen, C. A., Laursen, I., Tredal, J., Wittchen, K. B., Falck, U. & Rasmussen, O., 2000, Hørsholm: Byggecentrum. (BPS Publikation; No. 131).

Final technical report on field tests: Task 7. TOBUS. A decision-making tool for selecting office building upgrading solutions

Brandt, E. & Wittchen, K. B., 2000, Bruxelles: EU, DG XII.

Heating demand module: Reference guide

Traberg-Borup, S., Sørensen, K. G. & Wittchen, K. B., 2000, Bruxelles: EU, DG XII. (TOBUS document no. 00-007).

Luftsolvarmeanlæg: Luftsolfangere og solvægge

Schmidt, T., Boyer Rasmussen, K., Balslev, O., Mørck, O., Hummelshøj, R. M., Eg Rahbek, J., Bruun Jørgensen, O., Wittchen, K. B., Østergaard Jensen, S. & Rasmussen, O., 2000, Hørsholm: Byggecentrum. (BPS Publikation; No. 133).

Super insulated glass house

Wittchen, K. B. & Aggerholm, S., 2000, In: CADDET Energy Efficiency. 1, p. 16-17 2 p.

Building design system and CAD integration

Sørensen, K. G. & Wittchen, K. B., 1999, *Proceedings of the Sixth International IBPSA Conference*. Nakahara, N. (ed.). IBPSA, Vol. 3. p. 1157-1164

Det Højsolerede Glashus: Egebjerggård, Ballerup

Wittchen, K. B. & Aggerholm, S., 1999, Hørsholm: SBI forlag. 20 p. (SBI-rapport, Vol. 317).

EPIQR, a decision making tool for apartment building refurbishment

Caccavelli, D., Balaras, C., Bluysen, P., Flourentzou, F., Jaggs, M., Wetzel, C. & Wittchen, K. B., 1999, *Proceedings of XXVII IAHS Congress on Housing*. 6 p.

On energy savings, thermal comfort, utility value and architecture of new glazed-in-extensions to older blocks of flats

Svensson, O. & Wittchen, K. B., 1999, In: *International Journal of Low Energy and Sustainable Buildings*. 1, 18 p.

Glastilbygninger - energi, brugsværdi og arkitektur

Svensson, O. & Wittchen, K. B., 1998, In: *Arkitekten*. 100, 15, p. A17-A18

Glastilbygninger - ikke bare en energi gevinst

Svensson, O. & Wittchen, K. B., 1998, In: *VVS*. 34, 4, p. 34-38 5 p.

Nye glastilbygninger i ældre etageboligbyggeri

Svensson, O., Wittchen, K. B. & Statens Byggeforskningsinstitut, 1998, Hørsholm: SBI forlag. 129 p. (SBI-rapport; No. 286).

Simulation case study: Trundholm Townhall

Johnsen, K., Wittchen, K. B. & Madsen, C. E., 1998, Glasgow: University of Strathclyde.

Det højsolerede glashus: statusrapport

Wittchen, K. B. & Aggerholm, S., 1997, Statens Byggeforskningsinstitut, Aalborg Universitet.

Solar Walls in tsbi3: users guide

Wittchen, K. B., 1997, Hørsholm: SBI forlag. 32 p.

Solar walls in tsbi3 user's guide

Wittchen, K. B., 1997, Hørsholm: SBI forlag. 32 p. (Udenfor serier).

Tsbi3 og Internettet

Johnsen, K., Wittchen, K. B. & Sørensen, K. G., 1997, In: VVS. 33, 3, p. 43-45 2 p.

"Hurtige" modeller til tsbi3 og Kviksol

Wittchen, K. B. & Østergård Jensen, S., 1996, In: VVS. 32, 13, p. 43-44 1 p.

Hurtige modeller til tsbi3 og Kviksol

Wittchen, K. B. & Østergaard Jensen, S., 1996, In: VVS. 32, 13, p. 43-44

Solvægge i simuleringsprogrammer

Wittchen, K. B., 1996, Hørsholm: SBI forlag. 50 p. (SBI-rapport; No. 267).

Solvægge i simuleringsprogrammer

Wittchen, K. B., 1996, Hørsholm: Statens Byggeforskningsinstitut, Aalborg Universitet. 50 p.

Solvægge i tsbi3

Wittchen, K. B., 1996, In: VVS. 32, 14, p. 38-40

tsbi3 - status 1995

Wittchen, K. B., 1995, *EFP-temadag 'Energibevidst bygningsprojektering med edb': Dansk Teknologisk Institut, 20.november 1995*. Taastrup: Teknologisk Institut, 3 p.

Active solar energy in building simulations

Wittchen, K. B. & Jensen, S. Ø., 1994, *North Sun '94. Solar energy at high latitudes*. MacGregor, K. & Porteous, C. (eds.). Earthscan, p. 203-208

Solar walls in building simulations

Wittchen, K. B., 1994, *North Sun 94: Solar Energy at High Latitudes*. MacGregor, K. & Porteous, C. (eds.). Earthscan, p. 209-216

Validering af edb-programmet tsbi3

Wittchen, K. B. & Johnsen, K., 1994, In: VVS. 30, 1, p. 6-8, 41-42 3 p.

A solar wall simulation module

Wittchen, K. B., 1993, *Proceedings of the Third International IBPSA Conference*. Mitchell, J. W., Delsante, A. E. & Van der Perre, R. C. (eds.). IBPSA, p. 377-383

Simulating solar walls with tsbi3

Wittchen, K. B., 1993, *Proceedings of the 3rd Symposium on Building Physics in the Nordic Countries, Building Physics '93*. Saxhof, B. (ed.). Technical University of Denmark. Thermal Insulation Laboratory., Vol. Vol. 1. p. 309-316

Varmeanlæg til velisolerede bygninger: dimensionerings-principper

Wittchen, K. B., Saxhof, B. & Laboratoriet for Varmeisolering, Danmarks Tekniske Højskole, 1993, 56 p. BYG*DTU.